



Curriculum Review Week

June 2014

Day 1

Essential Questions: Doorways to Inquiry

- Cause genuine and relevant inquiry into the big ideas of the common core
- Provoke deep thought, lively discussions, sustained inquiry, and new understanding as well as more questions
- Require students to consider alternatives, weigh evidence, support their ideas, and justify their answers

Essential Questions: Doorways to Inquiry

- Stimulate vital, ongoing rethinking of big ideas, assumptions, and prior lessons
- Spark meaningful connections with prior learning and personal experiences
- Naturally recur, creating opportunities for transfer to other situations

Essential Questions

- Purpose of Essential question is more important than the form.
- Intent of the question is to sustain inquiry- you should have a range of answers
- 2-5 per unit
- Should be engaging and provocative for the age group.

Essential ?s in Mathematics

- ◉ When and why should we estimate?
- ◉ Is there a pattern?
- ◉ How does what we measure influence how we measure?
- ◉ What do good problem solvers do, especially when they get stuck?
- ◉ How accurate does this solution have to be?
- ◉ What are the limits of this math model and of mathematical modeling in general?

How to Revise?

- Old question:
 - What happens when we multiply a whole number by a fraction?
- Revised question?
 - What model/s help illustrate understanding of multiplying with fractions?

How to Use Essential ?s

- Need to be posted and referred to regularly.
- Students should summarize thinking periodically about the questions. This could help drive your instruction like a FA.
- Should be able to answer the questions at the end of the unit.

What are Understandings?

- Understandings should summarize the important inferences you want students to make and insights you hope to attain.
- An understanding is an insight students grasp with teacher assistance.
- Understandings take lots of good experiences.
- There should be 1 – 4 tasks or activities per understanding.

How do we generate better understandings?

- Skill: adding fractions
- Big idea:
 - Part to whole relation
 - Relating “likes” to “likes”
- Understanding developed:
 - When “parts” are combined, they have to be framed in terms of the same “whole”

How to Revise?

- Old Understanding:
 - Factors and regrouping are ways to simplify.
- Revised Understanding:
 - Solving problems requires simplifying expressions by finding useful equivalent statements by which unknowns and unwieldy expressions are easier to work with.

Stage 1

- Have we connected everything so that any teacher can understand what should be taught in this unit and what students should understand about math?

Knows and Dos

- Make sure to include vocabulary from the Vocabulary document from NC Math Wiki page.
- Include strategies we want students to know how to use.
- Look at old essential questions and understandings and see if they now fit into knows and dos.
- Make connections from previously learned skills and how they will use those to gain their new skills/Area of model of multiplication with fractions like you did with whole numbers.
- Include how students will use properties to better understand the math

Vocabulary

- Remember this is one of the biggest factors that cause EL, EC, and slow learners to do poorly on standardized tests.
- The correct vocabulary should be used in what students know and do.

Feedback

- ◉ Read it.
- ◉ Discuss it.
- ◉ Decide what changes need to be made.
- ◉ Remember: Any big restructuring of units need to have a valid reason and should be discussed with me.